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ABSTRACT

A detailed description of the Staff Sentiment Scale (SSS) is given. In addition, a brief description of the Conceptual Model, upon which the SSS is based, is given. The model is based on an extensive review of the literature of organizational theory and differentiated staffing and upon systematic observations in schools. It treats Process Variables, Product Variables and five categories of Essential Characteristics. Three of these categories form the basis of the present instrument. The SSS attempts to quantify Individualism, Collegiality, and Professional Disposition. Individualism represents the self-image of the individual and his identification with the organization. Forty-two items were selected for this categpry. Collegiality focuses on interpersonal relations among individuals in the organization. Twenty-three items were selected for this category. Professional Disposition reflects commitments to the students to an area of expertise, and to the public trust. Twenty-one items were selected for this category. An item sampling procedure was used to obtain contingent product-moment correlations within and between nine subscales. Revision of the SSS was based upon item analysis, subscale intercorrelations, and the need to bring the administration time down to the practical limits of a class period. Five subscales resulted: self-concept, frequency of interaction, collegiality, professional practices of school, preferred professional practices. Results of unidimensional analysis show that self-concept is the highest valued. Results of factor analysis show the highest loading to be on self concept. (CK)

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An Instrument for Measuring Staff Sentiments Toward Self, School, and Profession

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Background and Purpose

The Staff Sentiment Scale (SSS) was developed at the Evaluation Training Center, Department of Educational Research, Florida State University. The Center was engaged in fulfilling a contract with the School Personnel Utilization Program of the Bureau of Educational Personnel Development, U.S. Office of Education. The contract called for, among other things, development of a comprehensive model for evaluating School Personnel Utilization Programs and development of instruments and procedures required to assess the impact of the programs. The Conceptual Model employed was developed by DeBloois (1971), and the Staff Sentiment Scale was one of the several instruments based upon it.

The Conceptual Model and its rationale is described in detail by DeBloois (1971), therefore only a brief description is given here. The model is based on an extensive review of the literature of organizational theory and differentiated staffing and upon systematic observations in schools. The model treats Process Variables, Product Variables and five categories of Essential Characteristics. Three of these categories form the basis of the present instrument. The SSS attempts to quantify what are called Individualism, Collegiality, and Professional Disposition.

Rationale for the Initial Version of the Conceptual Model
(2/1/71)

In this section the three pertinent categories of the Model are described briefly and an account is given of the blueprinting process for the initial version of the SSS. The first version consisted of items constructed to form nine subscales, three for each category. The instrument developer tools certain simplifying liberties with the rich and detailed model in order to have a relatively small number of subscales. This was desirable to limit the administration time to one hour and to have enough items in a subscale to provide sufficient reliability for subscale scores.

Individualism

This category represents the self-image of the individual, his identification with the organization, the quality of his exchange with the organization, and the freedom he feels in pursuing organizational goals. The subcategories created in the initial SSS were:

04-I Self-Concept
04-II Support by Organization
04-III Reward by Organization

Forty-two items were selected for this category--14 for each of the above subscales. The responses were on a 5-point agree-disagree Likert-type scale, and item responses were summed to obtain subscale scores. Fourteen concepts were dealt with, and each was represented by an item on each of the subscales. Examples of concepts included: creativity, influence, motivation, individual uniqueness, and freedom to conform or not.

Collegiality

This variable focuses on interpersonal relations among individuals in the organization. An organization high on Collegiality exhibits an interdependent

relationship between members in which no one typically exercises authority over another, although there is influence in both directions. A member takes directions from the situation rather than from a person with legitimized authority. The subscales were:

05-I Frequency of Interaction
05-II Agreement on Expectations
05-III Interdependency

The first of the above was a measure of the quantity of interactions with persons in ten different staff positions. The second asked for the degree of agreement felt by the respondent between the school and himself on ten issues (e.g., qualifications for his position, promotional policies, and extra duties).

Subscale 05-III consisted of 23 items dealing with the quality of interactions between persons. Items dealt with openness of communication, cooperation among teachers, interpersonal skills of superiors and colleagues, and accessibility of administrators.

Professional Disposition

This variable refers to a social rather than administrative control. It reflects a commitment larger than to the particular employing institution. The commitments are to the students, to an area of expertise, and to the public trust. This category was developed by DeBloois (1971) from the literatures on Sociology of Professions, codes of ethics of education organizations, and inservice training. The subscales, with 21 items each were:

06-I Agreement with Professional Ethics
06-II Professional Practices of the School
06-III Agreement with School Practices

In 06-I, statements about professional codes and practices were responded to on a five-point scale of agreement. The second scale presented three response choices to a stem, for example:

The faculty at this school generally regards services which are not covered in the terms of their contract:

1. as an unjustified demand
2. as natural extenwions of the duties of a professional teacher
3. as part of the "unwritten" terms by which they must abide

Scale 06-III was a yes-no indicator of agreement with the perceived school practices as expressed on 06-II.

Field Testing and Revision of the Initial Version

The pool of 148 items was too long for administration to every teacher, therefore an item sampling procedure was used to obtain contingent product-moment correlations within and between the nine subscales.

The sample consisted of teachers in four schools in Sarasota County, Florida participating in School Personnel Utilization projects. Contingent N's ranged from 23 to 62. Internal consistency reliability estimates for the subscales were satisfactory with values of .60 to .91 for coefficient alpha.

Table 1 shows the intercorrelations of subscales. It may be noted that this is not an ordinary R matrix because each off-diagonal element is based upon a different subset of subjects. Mathematically, this means that the matrix is non-Grammian. That is, it is not expressable as the product of a matrix and its transpose. This matrix is thus not theoretically suitable for the usual methods of factor analysis. In fact, it produced erractic behavior in the writer's favorite computer program.

Revision of the SSS was based upon item analysis, subscale intercorrelations, and the need to bring the administration time down to the practical limits of a class period. In addition, site visits were made to two of the schools to interview teachers for their reactions and suggestions. All participants were invited to make written comments. In addition to item deletion and improvement, the number of subscales was reduced to five. This was accomplished by eliminating redundancies and combining highly correlated subscales.

TABLE 1

Intercorrelations of Subscales
on Initial Version of the SSS.

		04			05			06		
		I	II	III	I	II	III	I	II	III
04	I	1.00								
	II	.06	1.00							
	III	.02	.88*	1.00						
05	I	.07	.33	.24	1.00					
	II	.16	.26	.35	.18	1.00				
	III	.06	.77*	.82	.28	.60*	1.00			
06	I	.25	.09	.08	.38	.01	-.20	1.00		
	II	-.10	.71*	.74*	.19	.66*	.76	.00	1.00	
	III	-.05	.39	.57*	-.09	.43	.54*	-.14	.66*	1.00

* $p < .01$ for $N \geq 23$

Note:--Contingent Ns ranged from 23 to 62.

The Revised Form (4/1/71)

This section describes the five resulting subscales and the scoring procedure for the 70-item SSS.

I. Self-Concept. Ten brief items based on the original self-concept subscale were used to measure the individual's perception of himself. Topics included disposition, creativity, adaptability, and the possession of special abilities. This is the only portion remaining of the original Individualism category, 04. The other two subscales correlated high enough with Interdependency and Professional Practices to be considered expendable. It was felt that a short, reliable self-concept scale was highly desirable and that this particular set of items showed promise of meeting that criterion. Internal reliability was not the primary goal. It is relatively easy to construct a scale with high internal consistency by essentially repeating the same item in various forms. Every item in this scale makes reference to a different criterion for self-worth.

II. Frequency of Interaction. These ten items ask for the frequency the respondent interacted with persons in a variety of positions: the principal, a student teacher or intern, etc. This set of items is similar to the original, but two items with low variance were removed. These referred to a member of the school board and a person in a position similar to the respondent's. Reliability was not expected to be extremely high, but sufficiently so to give the total score meaning and to allow for possible correlations with other variables. High reliability could be interpreted as evidence for a personality trait resembling gregariousness or could be attributable to the organization if the school mean were sufficiently high.

III. Collegiality. This variable was seen as the central thrust of the SSS. The preceding subscale deals with the quantity of interaction, whereas Collegiality refers to the quality of that interaction. Because of the importance of this variable, 20 items were employed, based upon the Interdependency (05-III) scale of the original version. Interdependency correlated so highly with four of the other subscales that its name was changed to Collegiality in the revised form.

IV. Professional Practices of School. This is a 15-item revision of the subscale 06-II. A refinement was that the order of the three response alternatives was randomized to help disguise any predisposition by the test developers about the rank order of alternatives on some underlying continuum.

V. Preferred Professional Practices. Each of these items follows an item on the previous subscale. Rather than a yes-no agreement with the school practice mentioned in the preceding item, the person is asked to select the option that he feels is most desirable. Thus there is a three-point scale rather than a dichotomous one. This is more desirable from a statistical viewpoint and was preferred by a number of the teachers interviewed.

Scoring procedure. Responses can be made on the question sheet or on separate answer sheets for the IBM 1230 scoring machine. A computer program is available for processing, key punched on 1230 putput cards. The program makes appropriate item reflections, unrandomizes the responses on the last two scales, and provides punched output giving each subject's reflected item scores and mean item score for each subscale. The item means for the latter two subscales are diversely transformed to a five-point basis to be more comparable with the other three subscales. In all cases a higher score indicates a more favorable standing on the variable.

Results of Unidimensional Analysis

The revised form of 4/1/72 has been given in 25 schools, mostly elementary, in three regions of the United States. All schools were participating in some type of project or model school effort. Since the schools are not a random sample and may well be select, the results may not be representative. Any bias due to non-random sampling was expected to be in the positive direction. Voluntary participation by a school faculty in a project that would subject them to outside and internal scrutiny would likely reflect higher than average Self-Concept or Collegiality. A total of 601 subjects had scorable papers. Only a few potential subjects chose not to participate or had unscorable papers--less than two per cent.

Table 2 presents descriptive data on the subscale means. Recall that all are scored on a five-point scale where the larger value is more favorable. A value of three is an artificial neutral point.

An examination of means shows Self-Concept to be the highest valued, appreciably one standard deviation above Collegiality. Of course, this could be attributed partly to the manner of item construction, but it is also plausible that an individual typically has a higher opinion of himself than of others.

A far more meaningful difference appears between the means of Professional Practices of the School and Preferred Professional Practices. The latter is approximately two average standard deviations higher. This is taken as evidence that the teachers do not consider their schools ideal places to practice their profession. This difference appears useful in comparing schools.

TABLE 2

Item Means, Standard Deviations, Alpha Reliabilities, and Intercorrelations of Subscales (N = 601).

		Item Mean	Std. Dev.	Alpha Reliability	Intercorrelation I	II	III	IV	V
I	Self-Concept	4.01	.54	.74	.08				
II	Frequency of Interaction	3.56	.62	.71	.24	.14			
III	Collegiality	3.39	.66	.86	.17	.25	.41		
IV	Professional Practices	2.63	.55	.61	.01	.09	.59	.36	
V	Preferred Practices	3.63	.40	.35	.05	.18	-.04	.02	.05

Note:--Diagonal elements are squared multiple correlations.

At .74, reliability of Self-Concept was considered satisfactory for a scale of only 10 items that attempts to tap 10 components of the variable. Frequency of interaction with alpha of .71, seems to be sufficiently unitary a concept so as to be useful. It thus appears that there is a characteristic level of interaction for an individual. This could perhaps be related to introversion-extroversion.

Collegiality presents a coherent scale with high reliability, which is desirable since this is the major variable of interest in the SSS. An interesting alternative perspective is offered on Collegiality in the factor analysis discussion below.

Scale IV has just enough estimated reliability to permit speaking of perceived Professional Practices as a somewhat unitary construct. However, this is not true for the teachers' views on what is ideal, for scale V is not internally consistent. This leads to the hypothesis that there is a great deal of variation in an individual's agreement with the various notions we have compiled under this heading. Put another way, a person is likely to agree with some items in a code of ethics and not agree with others - it is not too predictable. On the other hand, when describing his school on the same item variables, his responses are more uniform. Maybe a halo effect operates, or maybe it is the case that schools are actually easier ranked on conformity to ethical codes than are individuals.

The intercorrelations show only one substantial value: the .59 between Collegiality and Professional Practices of the School. This finding should be heartening to humanists and/or proponents of ethical codes for education. For theoretical purposes that coefficient may be corrected for unreliability of measurement yielding a figure of .97! This estimated correction for attennation indicates that the two variables may be essentially the same. One

must not take such estimates too seriously. Again, factor analysis at the item level (discussed below) provides a deeper perspective. Factor analysis of the 5 subscale means is not profitable nor interpretable. Too much information is lost when summing across items within a subscale.

Results of Factor Analysis

Factor analysis provided additional insight into the dimensionality of the SSS. The large sample size encouraged the use of this multivariate technique. With between eight and nine times the number of subjects as variables, more confidence can be placed in the results than if there had been fewer respondents.

The method of analysis employed was principal axis with iterated communalities. Initial communality estimates were squared multiple correlations. Varimax rotation was used to produce an orthogonal solution.

Results were mixed. First, the bad news: There simply was not sufficient common variance in the items of scales IV and V to provide for any meaningful factor structure. This was true when the scales were analyzed separately and when all 70 items were analyzed together. In the latter case with a five-factor solution, 18 of the 30 communalities of items on the last two scales were .10 or less.

The good news concerns the first 40 items analyzed together. A four-factor solution sheds an informative light on scales I, II, and III, which are made up these items.

What will be called factor A is clearly self-concept, for the first 10 items have their highest loading on it. These items all have small loadings on the other factors (23 out of 30 are less than or equal to .10). Also, the other items load negligibly on factor A (22 out of 30 less than or equal to .10).

Factor B is distinctly Frequency of Interaction, with 9 of 10 items having their highest loading on it (.38 to .54). Other items tend to have minimal loadings on it (the largest is only .25). Likewise, the items of Frequency of Interaction have small loadings on the other factors (18 of 30 less than or equal to 10, with a maximum of .27).

Collegiality (items 21 to 40) divides into two factors which are readily interpretable. Factor C deals with attitude toward the "organization", "Administrators", "superiors" and "leaders". Nine of the first ten items on collegiality have their largest loadings (134 to .68) on factor C. The exceptional item in this set of ten refers only to the immediate department or grade level. However, two of the other 10 items on Collegiality have salient loadings (.35 and .50) on factor C.

Factor D is loaded (.39 to .70) by 9 of 10 of items 31-40. These items refer to groups, associates, and teams of teachers. Thus, factor D relates to attitude to colleagues at the same level rather than to the "organization" or to "superiors".

The finding that Collegiality can be separated into two relatively distinct factors relating respectively, to superiors and equals, is the most interesting finding from the SSS. This was not hypothesized by the model or the test developer. The fact that these factors approach orthogonality is even more appealing. Only minor revision of the SSS would probably clear the slight blurring between the two factors of Collegiality.

References

DeBloois, M. L. A conceptual model of school personnel utilization: A developmental spectrum for evaluation purposes. Unpublished paper, 54pp., 1971.

4/1/71

School Personnel Utilization
(Forms 04, 05, 06)

****
This scale seeks to determine some of your feelings about yourself and about your school.

At the top of the separate answer sheet, please fill in only the date, school, and city. Do not write your name.

There are no right or wrong responses.
****

	Strongly Agree				Strongly Disagree
1. I can exert influence in most groups.	1	2	3	4	5
2. I am a creative person.	1	2	3	4	5
3. I am a self-motivating person.	1	2	3	4	5
4. I am distressed by my personal inadequacies.	1	2	3	4	5
5. I am a source of valuable opinion.	1	2	3	4	5
6. I have no special skills or abilities.	1	2	3	4	5
7. I am dedicated to certain goals in my professional life.	1	2	3	4	5
8. I am usually in good spirits.	1	2	3	4	5
9. I deserve recognition for my performance.	1	2	3	4	5
10. I am an adaptable person.	1	2	3	4	5

****

To what degree have you interacted (exchanged ideas beyond a cordial level of greeting) with a person in each of the following positions during the past six months?

****

Response Code:

1 - Interacted very frequently
2 - Interacted several times
3 - Interacted only once
4 - Had no occasion to interact
5 - Interaction was deliberately avoided

11.	The superintendent or an assistant.	1	2	3	4	5
12.	The principal.	1	2	3	4	5
13.	A department head or team leader.	1	2	3	4	5
14.	A school counselor or psychologist.	1	2	3	4	5
15.	A district supervisor	1	2	3	4	5
16.	A student teacher or intern.	1	2	3	4	5
17.	A teaching aide or clerical assistant.	1	2	3	4	5
18.	A media or audio-visual specialist.	1	2	3	4	5
19.	A librarian.					
20.	A professional from outside the local system.	1	2	3	4	5

****
How much do you agree with the following statements as they apply to your own school situation?
****

		Strongly Agree				Strongly Disagree
21.	The organization welcomes new ideas regardless of their source.	1	2	3	4	5
22.	My superiors realize that mutual dependence is necessary in achieving organizational goals.	1	2	3	4	5
23.	Most of the organizational communication is in the form of memos and directives with little opportunity to respond.	1	2	3	4	5
24.	I would feel uneasy about openly disagreeing with administrators in my district.	1	2	3	4	5
25.	My opinions influence decisions in my immediate department or grade area.	1	2	3	4	5
26.	The administration in this district is not freely accessible.	1	2	3	4	5
27.	The organization plans for the development of skills in interpersonal relations.	1	2	3	4	5
28.	The person skilled in interpersonal relations is valued as highly as the technologist.	1	2	3	4	5
29.	I am becomming more competent in interpersonal skills due to the good examples set by the leaders in this organization.	1	2	3	4	5
30.	My immediate superior is competent in interpersonal relations.	1	2	3	4	5

		Strongly Agree				Strongly Disagree
31.	My associates are competent in interpersonal relations.	1	2	3	4	5
32.	Influence can be exerted in this organization by a person skillful with people regardless of his position.	1	2	3	4	5
33.	The structure of the organization encourages people to work jointly in problem solving.	1	2	3	4	5
34.	Teachers seldom work together in small groups to utilize their individual skills in improving instruction.	1	2	3	4	5
35.	The only time teachers work together in groups is for some activity not central to the instructional program.	1	2	3	4	5
36.	The teachers prefer the integrity and privacy of the individual classroom to performing under the scrutiny of their colleagues.	1	2	3	4	5
37.	There are no incentives for the teacher to work as a team member.	1	2	3	4	5
38.	It is common for teachers in this school to take the initiative in jointly planning and executing a unit of study.	1	2	3	4	5
39.	It is common for the teachers here to observe and evaluate each other's performance for the purpose of improvement.	1	2	3	4	5
40.	The teachers feel there is little net gain in the team approach.	1	2	3	4	5

****
For each of the following you are to mark on the answer sheet the number of the one alternative that most closely describes the actual situation at your school.

Then you are asked to choose the one alternative (either the same as above, or another) that you consider the most desirable.

Please answer every question even though some choices may be difficult.
****

41. In this school professional advancement: 1 2 3

    1. Is partly based on specialized ability
    2. Is seldom based on specialized knowledge or skills unique to the teaching profession
    3. Is solely based on specialized abilities

42. Which of the above is most desirable? 1 2 3

. . . . .

43. In considering a teacher for employment, this school: 1 2 3

    1. Ignores background deficiencies in the specialized skills required for teaching
    2. Views a lack of specialized preparation in relation to the number of fully prepared teachers already in service
    3. Seeks only persons who can demonstrate teaching skills gained from training or experience

44. Which of the above is most desirable? 1 2 3

. . . . .

45. In considering a teacher for employment, his interest in remaining a teaching professional is:

    1. Not at all considered
    2. Considered secondary to filling staff vacancies
    3. A requirement for employment

46. Which of the above is most desirable: 1 2 3

. . . . .

47. The ethical code at this school is: 1 2 3

    1. A clearly defined document which can be applied as a standard of teacher conduct
    2. In written form, but is not usable in terms of actual teacher behavior
    3. Implicit--there is no written form

48. Which of the above is most desirable: 1 2 3

49. In this school questions of professional conduct are: 1 2 3

    1. Subsumed under a specific code of professional behavior authored by faculty
    2. The responsibility of both administrative and faculty members
    3. Generally assumed to fall under administrative jurisdiction

50. Which of the above is most desirable? 1 2 3

. . . . .

51. A professional code of ethics is viewed by this faculty as: 1 2 3

    1. Irrelevant outside of the formal school setting
    2. An ideal which influences all their actions both in school and out
    3. Not being binding on them

52. Which of the above is most desirable? 1 2 3

. . . . .

. . . . .

53. In this teaching situation, the credentialing of personnel is handled: 1 2 3

    1. Exclusively by representatives of the teaching profession
    2. Exclusively by a state agency
    3. Jointly by a state agency and representatives of the teaching profession

54. Which of the above is most desirable? 1 2 3

. . . . .

55. The faculty at this school generally regards services which are not covered in the terms of their contract: 1 2 3

    1. As an unjustified demand
    2. As natural extensions of the duties of a professional teacher
    3. As part of the "unwritten" terms by which they must abide

56. Which of the above is most desirable? 1 2 3

. . . . .

57. The faculty sees research and study on educational problems as: 1 2 3

    1. Possible here on an informal basis with the results confined to this school
    2. Restricted to universities, reserach centers, or model schools
    3. A responsibility to be shared with other schools and agencies

58. Which of the above is most desirable? 1 2 3

. . . . .

59. The choice of learning topics and activities at this school is usually: 1 2 3

    1. A joint decision between teacher and students
    2. Left to the individual student
    3. Determined by appropriate subject matter teachers

60. Which of the above is most desirable? 1 2 3

. . . . .

61. Most teachers in this school believe that classroom decorum and standards for student conduct: 1 2 3

    1. Are necessary in order for learning to take place
    2. Are valuable because they represent the desires of the community
    3. Are not critical to the amount of learning that takes place

62. Which of the above is most desirable? 1 2 3

. . . . .

63. Staffing structure and plant organization at this school are determined mainly by: 1 2 3

    1. The learning requirements of the individual students
    2. The efforts of a remote administration to accommodate learning activities
    3. Administrative convenience

64. Which of the above is most desirable? 1 2 3

. . . . .

65. Regarding participation in community services, teachers at this school tend to: 1 2 3

    1. Refrain from involvement
    2. Become involved, but not in a professional capacity
    3. Become involved by contributing professional skills and knowledge

66. Which of the above is the most desirable? 1 2 3

. . . . .

67. At this school evaluations of teachers are made by: 1 2 3

    1. The principal or other administrator
    2. Colleagues
    3. Teaching superiors (department heads, etc.)

68. Which of the above is the most desirable? 1 2 3

. . . . .

. . . . .

69. Selection of new teachers: 1 2 3

    1. Is made by administrators
    2. Involves formal faculty participation
    3. Is made by administrators after informal faculty recommendations

70. Which of the above is the most desirable? 1 2 3

THANKS FOR YOUR EFFORT